

Amendments To the Claims:

Please amend the claims as shown.

1. (currently amended) A Method for monitoring at least one measuring signal, ~~in particular for use in automation technology, in which method a computer system cyclically determines~~ comprising:

cyclically determining by a computer system a characteristic value (4) of the measuring signal in measuring periods (8) which are separated from one another by a time interval (9),
whereby; –

automatically defining a priority to the measuring signal (P1...P15) is defined
~~automatically, said priority (P1...P15) is assigned;~~

automatically assigning the priority to the measuring signal; and –

automatically specifying the a time interval (9) between the measuring periods (8) is
~~specified as a function of the priority (P1...P15).~~

2. (currently amended) A Method according to Claim 1, wherein the priority ~~(P1...P15)~~ is ~~defined~~ automatically defined as a function of the characteristic value (4) of the measuring signal.

3. (currently amended) A Method according to Claim 1 ~~or 2~~, wherein the priority ~~(P1...P15)~~ is ~~defined~~ automatically defined as a function of the size of the difference in the characteristic values (4) of the measuring signal which were determined in two successive measuring periods (8).

4. (currently amended) A Method according to ~~one of the preceding~~ claims 1, wherein the priority ~~(P1...P15)~~ is ~~defined~~ automatically defined as a function of a trend analysis performed by the computer system of the characteristic values (4) of the measuring signal which were determined in successive measuring periods (8).

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5. (currently amended) A ~~M~~method according to ~~one of the preceding~~ claims 1, wherein the measuring periods ~~(8)~~ are embodied as discrete sampling instants and the characteristic values ~~(4)~~ of the measuring signal are embodied as momentary values of the measuring signal.

6. (new) A method according to Claim 1, for use in automation technology.

7. (new) A method according to Claim 2, wherein the priority is ~~defined~~ automatically defined as a function of the size of the difference in the characteristic values of the measuring signal which were determined in two successive measuring periods.

8. (new) A method according to claim 2, wherein the priority is ~~defined~~ automatically defined as a function of a trend analysis performed by the computer system of the characteristic values of the measuring signal which were determined in successive measuring periods.

9. (new) A method according to claim 3, wherein the priority is ~~defined~~ automatically defined as a function of a trend analysis performed by the computer system of the characteristic values of the measuring signal which were determined in successive measuring periods.

10. (new) A method according to claim 2, wherein the measuring periods are embodied as discrete sampling instants and the characteristic values of the measuring signal are embodied as momentary values of the measuring signal.

11. (new) A method according to claim 3, wherein the measuring periods are embodied as discrete sampling instants and the characteristic values of the measuring signal are embodied as momentary values of the measuring signal.

12. (new) A method according to claim 4, wherein the measuring periods are embodied as discrete sampling instants and the characteristic values of the measuring signal are embodied as momentary values of the measuring signal.

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13. (new) A method for monitoring at least one measuring signal, for use in automation technology, in which method a computer system cyclically determines a characteristic value of the measuring signal in measuring periods which are separated from one another by a time interval, whereby

- a priority is defined automatically,
- said priority is assigned to the measuring signal and
- the time interval between the measuring periods is specified as a function of the priority.